

**ABSTRACT**  
**CATALYST COMPOSITION**

This invention relates to transition metal catalyst compounds represented by the formula:  $LMX_2$  wherein M is a Group 7 to 11 metal, L is a tridentate or tetradentate neutrally charged ligand that is bonded to M by three or four nitrogen atoms, and at least one terminal nitrogen atom is part of a pyridinyl ring, a different terminal nitrogen atom is substituted with one  $C_3$ - $C_{50}$  hydrocarbyl, and one hydrogen atom or two hydrocarbyls; wherein at least one hydrocarbyl is a  $C_3$ - $C_{50}$  hydrocarbyl, and the central nitrogen atom is bonded to three different carbon atoms or two different carbon atoms, and one hydrogen atom; X is independently a monoanionic ligand or both X are joined together to form a bidentate dianionic ligand.